



FIG. 32 illustrates a pixel array for producing a color image by adding together the electrical charges in color pixel groups;

FIG. 33 illustrates the structure of the image-capturing element of the fifth embodiment;

FIG. 34 illustrates the principle through which a black and white image is achieved by adding together the electrical charges in a color pixel group;

FIG. 35 illustrates a pixel array for producing a black and white image by adding together the electrical charges in color pixel groups;

FIG. 36 is a block diagram illustrating in detail the functional structure of the DSP in FIG. 4; and

FIG. 37 presents an examples of color pixel groups constituted of $4 \times 6 = 24$ pixels.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

- First Embodiment -

The following is an explanation of the first embodiment of the present invention given in reference to the drawings. The image-capturing element in the first embodiment makes it possible to capture both a color image and a black and white image with a single image-capturing element and also makes it possible to achieve high speed image-capturing for black